

SEQUENCE LISTING

<110> Yan et al.

<120> SUBSTRATES AND ASSAYS FOR BETA-SECRETASE ACTIVITY

<130> 29915/00281E

<140> To be assigned
<141> 2004-03-16

<150> 09/908,943
<151> 2001-07-19

<150> 60/219,795
<151> 2000-07-19

<160> 197

<170> PatentIn Ver. 2.0

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35 40 45
Glu Glu Pro Glu Glu Pro Gly Arg Arg Gly Ser Phe Val Glu Met Val
50 55 60
Asp Asn Leu Arg Gly Lys Ser Gly Gln Gly Tyr Tyr Val Glu Met Thr
65 70 75 80
Val Gly Ser Pro Pro Gln Thr Leu Asn Ile Leu Val Asp Thr Gly Ser
85 90 95
Ser Asn Phe Ala Val Gly Ala Ala Pro His Pro Phe Leu His Arg Tyr
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Tyr Gln Arg Gln Leu Ser Ser Thr Tyr Arg Asp Leu Arg Lys Gly Val
115 120 125
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130 135 140
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Ala Ala Ile Thr Glu Ser Asp Lys Phe Phe Ile Asn Gly Ser Asn Trp
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Glu Gly Ile Leu Gly Leu Ala Tyr Ala Glu Ile Ala Arg Pro Asp Asp
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Ser Leu Glu Pro Phe Phe Asp Ser Leu Val Lys Gln Thr His Val Pro
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Asn Leu Phe Ser Leu His Leu Cys Gly Ala Gly Phe Pro Leu Asn Gln
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Ser Glu Val Leu Ala Ser Val Gly Gly Ser Met Ile Ile Gly Gly Ile
225 230 235 240
Asp His Ser Leu Tyr Thr Gly Ser Leu Trp Tyr Thr Pro Ile Arg Arg
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Thr Asn Gln Ser Phe Arg Ile Thr Ile Leu Pro Gln Gln Tyr Leu Arg
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Gln Thr Asp Glu Ser Thr Leu Met Thr Ile Ala Tyr Val Met Ala Ala
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<212> PRT

<213> Homo sapiens

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35 40 45

Glu Glu Pro Glu Glu Pro Gly Arg Arg Gly Ser Phe Val Glu Met Val
50 55 60

Asp Asn Leu Arg Gly Lys Ser Gly Gln Gly Tyr Tyr Val Glu Met Thr
65 70 75 80

Val Gly Ser Pro Pro Gln Thr Leu Asn Ile Leu Val Asp Thr Gly Ser
85 90 95

Ser Asn Phe Ala Val Gly Ala Ala Pro His Pro Phe Leu His Arg Tyr
100 105 110

Tyr Gln Arg Gln Leu Ser Ser Thr Tyr Arg Asp Leu Arg Lys Gly Val
115 120 125

Tyr Val Pro Tyr Thr Gln Gly Lys Trp Glu Gly Glu Leu Gly Thr Asp
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Leu Val Ser Ile Pro His Gly Pro Asn Val Thr Val Arg Ala Asn Ile
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Ala Ala Ile Thr Glu Ser Asp Lys Phe Phe Ile Asn Gly Ser Asn Trp
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Glu Gly Ile Leu Gly Leu Ala Tyr Ala Glu Ile Ala Arg Leu Cys Gly
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Ala Gly Phe Pro Leu Asn Gln Ser Glu Val Leu Ala Ser Val Gly Gly
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Ser Met Ile Ile Gly Gly Ile Asp His Ser Leu Tyr Thr Gly Ser Leu

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Ser Thr Glu Lys Phe Pro Asp Gly Phe Trp Leu Gly Glu Gln Leu Val		
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Met Gly Ala Val Ile Met Glu Gly Phe Tyr Val Val Phe Asp Arg Ala		
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Asp Cys Gly Tyr Asn Ile Pro Gln Thr Asp Glu Ser Thr Leu Met Thr		
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Ile Ala Tyr Val Met Ala Ala Ile Cys Ala Leu Phe Met Leu Pro Leu		
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<210> 7
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peptide sequence

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<210> 8
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peptide sequence

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<210> 12
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<223> Xaa=cysteic acid

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peptide sequence

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peptide sequence

<400> 19
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<210> 24
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Ala Asn Leu Ser Thr Phe Ala Gln Pro Arg Arg
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1 5 10 15

Leu Val Xaa Gly Glu Arg Gly Phe Phe Tyr Thr Pro Lys Ala
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Leu His Ala Leu Gly Gly Cys
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<210> 30
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<210> 32
<211> 8
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peptide sequence

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<210> 33
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<210> 34
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peptide sequence

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<210> 35
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<210> 36
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<210> 37
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<400> 37
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1 5

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peptide sequence

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Trp Arg Arg Val Glu Ala Leu Tyr Leu Val Glu Gly Glu Arg Lys
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<210> 43
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peptide sequence

<400> 43
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1 5 10

<210> 44
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<400> 44
Met Leu Leu Leu
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<210> 45
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<220>
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<210> 46
<211> 14
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peptide sequence

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<400> 47
Lys Val Glu Ala Asn Leu Ala Val Glu Gly Glu Arg Lys Lys
1 5 10

<210> 48
<211> 14

<212> PRT
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<220>
<223> Description of Artificial Sequence: synthetic peptide sequence

<400> 48
Lys Val Glu Ala Leu Tyr Ala Val Glu Gly Glu Arg Lys Lys
1 5 10

<210> 49
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 49
Xaa Ala Asn Tyr Glu Val Glu Phe
1 5

<210> 50
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic peptide sequence

<220>
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<223> Xaa= A, V, I, S, H, Y, T or F

<400> 50
Glu Xaa Asn Tyr Glu Val Glu Phe
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<210> 51
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic peptide sequence

<220>
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<222> (3)
<223> Xaa= N, L, K, S, G, T, D, A, Q, or E

<400> 51
Glu Ala Xaa Tyr Glu Val Glu Phe
1 5

<210> 52
<211> 8
<212> PRT
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<220>
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peptide sequence

<220>
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<400> 52
Glu Ala Asn Xaa Glu Val Glu Phe
1 5

<210> 53
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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peptide sequence

<220>
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<223> Xaa= E, A, D, M, Q, S or G

<400> 53
Glu Ala Asn Tyr Xaa Val Glu Phe
1 5

<210> 54
<211> 8
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<220>
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peptide sequence

<220>
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<223> Xaa= V, A, N, T, L, F or S

<400> 54
Glu Ala Asn Tyr Glu Xaa Glu Phe
1 5

<210> 55

<211> 8
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<220>
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<220>
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<400> 55
Glu Ala Asn Tyr Glu Val Xaa Phe
1 5

<210> 56
<211> 8
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<220>
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<220>
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<223> Xaa= F, W, G, A, H, P, G, N, S or E

<400> 56
Glu Ala Asn Tyr Glu Val Glu Xaa
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<210> 57
<211> 8
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<220>
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<400> 57
Xaa Val Leu Leu Ala Ala Gly Trp
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<210> 58
<211> 8
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<220>
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peptide sequence

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<400> 58
Gly Xaa Leu Leu Ala Ala Gly Trp
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<210> 59
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peptide sequence

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<400> 59
Gly Val Xaa Leu Ala Ala Gly Trp
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<210> 60
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<400> 60
Gly Val Leu Xaa Ala Ala Gly Trp
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<210> 61
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<400> 61
Gly Val Leu Leu Xaa Ala Gly Trp
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<210> 62
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<400> 62
Gly Val Leu Leu Ala Xaa Gly Trp
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<210> 63
<211> 8
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<400> 63
Gly Val Leu Leu Ala Ala Xaa Trp
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<210> 64
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peptide sequence

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<223> Xaa= F, W, G, A, H, P, G, N or S

<400> 64
Gly Val Leu Leu Ala Ala Gly Xaa
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<210> 65

<211> 8
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<400> 65
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<210> 66
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peptide sequence

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<400> 66
Ile Xaa Lys Met Asp Asn Phe Gly
1 5

<210> 67
<211> 8
<212> PRT
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<220>
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peptide sequence

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<223> Xaa= N, L, K, S, G, T, D, A, Q or E

<400> 67
Ile Ile Xaa Met Asp Asn Phe Gly
1 5

<210> 68
<211> 8
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peptide sequence

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<400> 68
Ile Ile Lys Xaa Asp Asn Phe Gly
1 5

<210> 69
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peptide sequence

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<400> 69

Ile Ile Lys Met Xaa Asn Phe Gly
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<210> 72

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<212> PRT

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<222> (8)

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<400> 72

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<210> 73

<211> 10

<212> PRT

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<220>

<223> Description of Artificial Sequence: synthetic peptide sequence

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<400> 73

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<210> 74

<211> 10

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: synthetic peptide sequence

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<222> (2)

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<400> 74

Asp Xaa Ser Asn Leu Glu Met Thr His Ala
1 5 10

<210> 75
<211> 10
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<220>
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<400> 75
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1 5 10

<210> 76
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<220>
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<223> Xaa= Y, L, M, Nle, F or H

<400> 76
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1 5

<210> 77
<211> 10
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Asp Ser Ser Asn Leu Glu Xaa Thr His Ala
1 5 10

<210> 78
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<223> Description of Artificial Sequence: synthetic peptide sequence

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<222> (8)

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<400> 78

Asp Ser Ser Asn Leu Glu Met Xaa His Ala
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<210> 79

<211> 9

<212> PRT

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<223> Description of Artificial Sequence: synthetic peptide sequence

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<400> 79

Asp Ser Asn Leu Glu Met Thr Xaa Ala
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<210> 80

<211> 9

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<400> 80

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<210> 81

<211> 8

<212> PRT

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<223> Xaa= cysteic acid

<400> 81

Xaa His Gly Phe Gln Leu Xaa His
1 5

<210> 82

<211> 8

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peptide sequence

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<400> 82

Thr Xaa Gly Phe Gln Leu Xaa His
1 5

<210> 83

<211> 8

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peptide sequence

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<400> 83

Thr His Xaa Phe Gln Leu Xaa His
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<210> 84

<211> 8

<212> PRT

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<400> 84

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<210> 85

<211> 8

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<211> 8

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<222> (7)

<223> Xaa= cysteic acid

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<210> 87
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peptide sequence

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<210> 89
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<210> 91
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<400> 91
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1 5

<210> 92
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Xaa Tyr Thr Xaa Ser Phe Ser Pro
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<210> 93
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1. 5

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1. 5

<210> 95
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Xaa Tyr Thr His Ser Phe Xaa Pro
1 5

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Ser Xaa Asp Xaa Gly Ser Xaa Gly
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<210> 99

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peptide sequence

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<400> 99

Ser Thr Xaa Xaa Gly Ser Xaa Gly
1 5

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peptide sequence

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peptide sequence

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Ser Thr Asp Xaa Xaa Ser Xaa Gly
1 5

<210> 102

<211> 8

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<222> (6)

<223> Xaa= V, A, N, T, L, F or S

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Ser Thr Asp Xaa Gly Xaa Xaa Gly
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<210> 103

<211> 8

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<222> (7)

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<400> 103

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<210> 104

<211> 8

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Xaa Phe Ala Xaa Xaa Xaa Xaa Asn
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Xaa Xaa Ala Xaa Xaa Xaa Xaa Asn
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1 5

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<223> Xaa= any amino acid

<400> 108

Xaa Phe Ala Xaa Xaa Xaa Xaa Asn
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<210> 109
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<222> (4)
<223> Xaa = any amino acid

<220>
<221> SITE
<222> (5)
<223> Xaa= E, A, D, M, Q, S or G

<220>
<221> SITE
<222> (6)..(7)
<223> Xaa= any amino acid

<400> 109
Xaa Phe Ala Xaa Xaa Xaa Xaa Asn
1 5

<210> 110
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic peptide sequence

<220>
<221> SITE
<222> (1)
<223> Xaa= any amino acid

<220>
<221> SITE
<222> (4)..(5)
<223> Xaa= any amino acid

<220>
<221> SITE
<222> (6)
<223> Xaa= V, A, N, T, L, F or S

<220>
<221> SITE
<222> (7)
<223> Xaa= any amino acid

<400> 110
Xaa Phe Ala Xaa Xaa Xaa Xaa Asn
1 5

<210> 111
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic peptide sequence

<220>
<221> SITE
<222> (1)
<223> Xaa= any amino acid

<220>
<221> SITE
<222> (4)..(6)
<223> Xaa= any amino acid

<220>
<221> SITE
<222> (7)
<223> Xaa= E, G, F, H, cysteic acid or S

<400> 111
Xaa Phe Ala Xaa Xaa Xaa Xaa Asn
1 5

<210> 112
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic peptide sequence

<220>
<221> SITE
<222> (1)
<223> Xaa= any amino acid

<220>
<221> SITE
<222> (4)..(7)
<223> Xaa= any amino acid

<220>
<221> SITE
<222> (8)
<223> Xaa= F, W, G, A, H, P, G, N or S

<400> 112
Xaa Phe Ala Xaa Xaa Xaa Xaa Xaa
1 5

<210> 113
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic peptide sequence

<400> 113
Glu Val Asn Leu Asp Ala Glu Phe Arg
1 5

<210> 114
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic peptide sequence

<400> 114
Asp Tyr Lys Asp Asp Asp Lys
1 5

<210> 115
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic peptide sequence

<400> 115
Ala Cys Gly Ser Glu Ser Met Asp Ser Gly Ile Ser Leu Asp Asn Lys
1 5 10 15

Trp

<210> 116
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic peptide sequence

<400> 116
Trp Lys Lys Gly Ala Ile Ile Gly Leu Met Val Gly Gly Val Val Lys
1 5 10 15

Lys

<210> 117

<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 117
Ala Asn Leu Ser Thr Phe Ala Gln Pro Arg Arg
1 5 10

<210> 118
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 118
Tyr Arg Tyr Gln Ser His Asp Tyr Ala Phe Ser Ser Val Glu Lys Leu
1 5 10 15
Leu His Leu Gly Gly Cys
20

<210> 119
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 119
Tyr Arg Tyr Gln Ser His Asp Tyr Ala Phe Ser Ser Val Glu Lys Leu
1 5 10 15
Leu His Leu Gly Gly Cys
20

<210> 120
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 120
Lys Thr Ile Thr Leu Glu Val Glu Pro Ser
1 5 10

<210> 121
<211> 12

<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic peptide sequence

<220>
<221> SITE
<222> (9)
<223> Xaa= cysteic acid

<400> 121
Val Glu Ala Leu Tyr Leu Val Cys Xaa Gly Glu Arg
1 5 10

<210> 122
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic peptide sequence

<400> 122
Val Glu Ala Leu Tyr Leu Val Glu Gly Glu Arg
1 5 10

<210> 123
<211> 363
<212> PRT
<213> Homo sapiens

<220>
<223> galactosyltransferase

<400> 123
Met Ala Ser Lys Ser Trp Leu Asn Phe Leu Thr Phe Leu Cys Gly Ser
1 5 10 15

Ala Ile Gly Phe Leu Leu Cys Ser Gln Leu Phe Ser Ile Leu Leu Gly
20 25 30

Glu Lys Val Asp Thr Gln Pro Asn Val Leu His Asn Asp Pro His Ala
35 40 45

Arg His Ser Asp Asp Asn Gly Gln Asn His Leu Glu Gly Gln Met Asn
50 55 60

Phe Asn Ala Asp Ser Ser Gln His Lys Asp Glu Asn Thr Asp Ile Ala
65 70 75 80

Glu Asn Leu Tyr Gln Lys Val Arg Ile Leu Cys Trp Val Met Thr Gly
85 90 95

Pro Gln Asn Leu Glu Lys Lys Ala Lys His Val Lys Ala Thr Trp Ala
100 105 110

Gln Arg Cys Asn Lys Val Leu Phe Met Ser Ser Glu Glu Asn Lys Asp
115 120 125

Phe Pro Ala Val Gly Leu Lys Thr Lys Glu Gly Arg Asp Gln Leu Tyr
130 135 140

Trp Lys Thr Ile Lys Ala Phe Gln Tyr Val His Glu His Tyr Leu Glu
145 150 155 160

Asp Ala Asp Trp Phe Leu Lys Ala Asp Asp Asp Thr Tyr Val Ile Leu
165 170 175

Asp Asn Leu Arg Trp Leu Leu Ser Lys Tyr Asp Pro Glu Glu Pro Ile
180 185 190

Tyr Phe Gly Arg Arg Phe Lys Pro Tyr Val Lys Gln Gly Tyr Met Ser
195 200 205

Gly Gly Ala Gly Tyr Val Leu Ser Lys Glu Ala Leu Lys Arg Phe Val
210 215 220

Asp Ala Phe Lys Thr Asp Lys Cys Thr His Ser Ser Ser Ile Glu Asp
225 230 235 240

Leu Ala Leu Gly Arg Cys Met Glu Ile Met Asn Val Glu Ala Gly Asp
245 250 255

Ser Arg Asp Thr Ile Gly Lys Glu Thr Phe His Pro Phe Val Pro Glu
260 265 270

His His Leu Ile Lys Gly Tyr Leu Pro Arg Thr Phe Trp Tyr Trp Asn
275 280 285

Tyr Asn Tyr Tyr Pro Pro Val Glu Gly Pro Gly Cys Cys Ser Asp Leu
290 295 300

Ala Val Ser Phe His Tyr Val Asp Ser Thr Thr Met Tyr Glu Leu Glu
305 310 315 320

Tyr Leu Val Tyr His Leu Arg Pro Tyr Gly Tyr Leu Tyr Arg Tyr Gln
325 330 335

Pro Thr Leu Pro Glu Arg Ile Leu Lys Glu Ile Ser Gln Ala Asn Lys
340 345 350

Asn Glu Asp Thr Lys Val Lys Leu Gly Asn Pro
355 360

<210> 124

<211> 405

<212> PRT

<213> Homo sapiens

<220>

<223> Homo sapiens sialyltransferase 1

<400> 124

Ile His Thr Asn Leu Lys Lys Phe Ser Cys Cys Val Leu Val Phe
1 5 10 15

Leu Leu Phe Ala Val Ile Cys Val Trp Lys Glu Lys Lys Gly Ser
20 25 30

Tyr Tyr Asp Ser Phe Lys Leu Gln Thr Lys Glu Phe Gln Val Leu Lys

35	40	45
Ser Leu Gly Lys Leu Ala Met Gly Ser Asp Ser Gln Ser Val Ser Ser		
50	55	60
Ser Ser Thr Gln Asp Pro His Arg Gly Arg Gln Thr Leu Gly Ser Leu		
65	70	75
80		
Arg Gly Leu Ala Lys Ala Lys Pro Glu Ala Ser Phe Gln Val Trp Asn		
85	90	95
Lys Asp Ser Ser Lys Asn Leu Ile Pro Arg Leu Gln Lys Ile Trp		
100	105	110
Lys Asn Tyr Leu Ser Met Asn Lys Tyr Lys Val Ser Tyr Lys Gly Pro		
115	120	125
Gly Pro Gly Ile Lys Phe Ser Ala Glu Ala Leu Arg Cys His Leu Arg		
130	135	140
Asp His Val Asn Val Ser Met Val Glu Val Thr Asp Phe Pro Phe Asn		
145	150	155
160		
Thr Ser Glu Trp Glu Gly Tyr Leu Pro Lys Glu Ser Ile Arg Thr Lys		
165	170	175
Ala Gly Pro Trp Gly Arg Cys Ala Val Val Ser Ser Ala Gly Ser Leu		
180	185	190
Lys Ser Ser Gln Leu Gly Arg Glu Ile Asp Asp His Asp Ala Val Leu		
195	200	205
Arg Phe Asn Gly Ala Pro Thr Ala Asn Phe Gln Gln Asp Val Gly Thr		
210	215	220
Lys Thr Thr Ile Arg Leu Met Asn Ser Gln Leu Val Thr Thr Glu Lys		
225	230	235
240		
Arg Phe Leu Lys Asp Ser Leu Tyr Asn Glu Gly Ile Leu Ile Val Trp		
245	250	255
Asp Pro Ser Val Tyr His Ser Asp Ile Pro Lys Trp Tyr Gln Asn Pro		
260	265	270
Asp Tyr Asn Phe Phe Asn Asn Tyr Lys Thr Tyr Arg Lys Leu His Pro		
275	280	285
Asn Gln Pro Phe Tyr Ile Leu Lys Pro Gln Met Pro Trp Glu Leu Trp		
290	295	300
Asp Ile Leu Gln Glu Ile Ser Pro Glu Glu Ile Gln Pro Asn Pro Pro		
305	310	315
320		
Ser Ser Gly Met Leu Gly Ile Ile Met Met Thr Leu Cys Asp Gln		
325	330	335
Val Asp Ile Tyr Glu Phe Leu Pro Ser Lys Arg Lys Thr Asp Val Cys		
340	345	350
Tyr Tyr Tyr Gln Lys Phe Phe Asp Ser Ala Cys Thr Met Gly Ala Tyr		
355	360	365
His Pro Leu Leu Tyr Glu Lys Asn Leu Val Lys His Leu Asn Gln Gly		

370

375

380

Thr Asp Glu Asp Ile Tyr Leu Leu Gly Lys Ala Thr Leu Pro Gly Phe
385 390 395 400

Arg Thr Ile His Cys
405

<210> 125

<211> 518

<212> PRT

<213> Homo sapiens

<220>

<223> Homo sapiens aspartyl protease 1

<400> 125

Met Gly Ala Leu Ala Arg Ala Leu Leu Leu Pro Leu Leu Ala Gln Trp
1 5 10 15

Leu Leu Arg Ala Ala Pro Glu Leu Ala Pro Ala Pro Phe Thr Leu Pro
20 25 30

Leu Arg Val Ala Ala Ala Thr Asn Arg Val Val Ala Pro Thr Pro Gly
35 40 45

Pro Gly Thr Pro Ala Glu Arg His Ala Asp Gly Leu Ala Leu Ala Leu
50 55 60

Glu Pro Ala Leu Ala Ser Pro Ala Gly Ala Ala Asn Phe Leu Ala Met
65 70 75 80

Val Asp Asn Leu Gln Gly Asp Ser Gly Arg Gly Tyr Tyr Leu Glu Met
85 90 95

Leu Ile Gly Thr Pro Pro Gln Lys Leu Gln Ile Leu Val Asp Thr Gly
100 105 110

Ser Ser Asn Phe Ala Val Ala Gly Thr Pro His Ser Tyr Ile Asp Thr
115 120 125

Tyr Phe Asp Thr Glu Arg Ser Ser Thr Tyr Arg Ser Lys Gly Phe Asp
130 135 140

Val Thr Val Lys Tyr Thr Gln Gly Ser Trp Thr Gly Phe Val Gly Glu
145 150 155 160

Asp Leu Val Thr Ile Pro Lys Gly Phe Asn Thr Ser Phe Leu Val Asn
165 170 175

Ile Ala Thr Ile Phe Glu Ser Glu Asn Phe Phe Leu Pro Gly Ile Lys
180 185 190

Trp Asn Gly Ile Leu Gly Leu Ala Tyr Ala Thr Leu Ala Lys Pro Ser
195 200 205

Ser Ser Leu Glu Thr Phe Phe Asp Ser Leu Val Thr Gln Ala Asn Ile
210 215 220

Pro Asn Val Phe Ser Met Gln Met Cys Gly Ala Gly Leu Pro Val Ala
225 230 235 240

Gly Ser Gly Thr Asn Gly Gly Ser Leu Val Leu Gly Gly Ile Glu Pro
245 250 255

Ser Leu Tyr Lys Gly Asp Ile Trp Tyr Thr Pro Ile Lys Glu Glu Trp
260 265 270

Tyr Tyr Gln Ile Glu Ile Leu Lys Leu Glu Ile Gly Gly Gln Ser Leu
275 280 285

Asn Leu Asp Cys Arg Glu Tyr Asn Ala Asp Lys Ala Ile Val Asp Ser
290 295 300

Gly Thr Thr Leu Leu Arg Leu Pro Gln Lys Val Phe Asp Ala Val Val
305 310 315 320

Glu Ala Val Ala Arg Ala Ser Leu Ile Pro Glu Phe Ser Asp Gly Phe
325 330 335

Trp Thr Gly Ser Gln Leu Ala Cys Trp Thr Asn Ser Glu Thr Pro Trp
340 345 350

Ser Tyr Phe Pro Lys Ile Ser Ile Tyr Leu Arg Asp Glu Asn Ser Ser
355 360 365

Arg Ser Phe Arg Ile Thr Ile Leu Pro Gln Leu Tyr Ile Gln Pro Met
370 375 380

Met Gly Ala Gly Leu Asn Tyr Glu Cys Tyr Arg Phe Gly Ile Ser Pro
385 390 395 400

Ser Thr Asn Ala Leu Val Ile Gly Ala Thr Val Met Glu Gly Phe Tyr
405 410 415

Val Ile Phe Asp Arg Ala Gln Lys Arg Val Gly Phe Ala Ala Ser Pro
420 425 430

Cys Ala Glu Ile Ala Gly Ala Ala Val Ser Glu Ile Ser Gly Pro Phe
435 440 445

Ser Thr Glu Asp Val Ala Ser Asn Cys Val Pro Ala Gln Ser Leu Ser
450 455 460

Glu Pro Ile Leu Trp Ile Val Ser Tyr Ala Leu Met Ser Val Cys Gly
465 470 475 480

Ala Ile Leu Leu Val Leu Ile Val Leu Leu Leu Leu Pro Phe Arg Cys
485 490 495

Gln Arg Arg Pro Arg Asp Pro Glu Val Val Asn Asp Glu Ser Ser Leu
500 505 510

Val Arg His Arg Trp Lys
515

<210> 126

<211> 255

<212> PRT

<213> Homo sapiens

<220>

<223> Homo sapiens syntaxin 6

<400> 126
Met Ser Met Glu Asp Pro Phe Phe Val Val Lys Gly Glu Val Gln Lys
1 5 10 15

Ala Val Asn Thr Ala Gln Gly Leu Phe Gln Arg Trp Thr Glu Leu Leu
20 25 30

Gln Asp Pro Ser Thr Ala Thr Arg Glu Glu Ile Asp Trp Thr Thr Asn
35 40 45

Glu Leu Arg Asn Asn Leu Arg Ser Ile Glu Trp Asp Leu Glu Asp Leu
50 55 60

Asp Glu Thr Ile Ser Ile Val Glu Ala Asn Pro Arg Lys Phe Asn Leu
65 70 75 80

Asp Ala Thr Glu Leu Ser Ile Arg Lys Ala Phe Ile Thr Ser Thr Arg
85 90 95

Gln Val Val Arg Asp Met Lys Asp Gln Met Ser Thr Ser Val Gln
100 105 110

Ala Leu Ala Glu Arg Lys Asn Arg Gln Ala Leu Leu Gly Asp Ser Gly
115 120 125

Ser Gln Asn Trp Ser Thr Gly Thr Thr Asp Lys Tyr Gly Arg Leu Asp
130 135 140

Arg Glu Leu Gln Arg Ala Asn Ser His Phe Ile Glu Glu Gln Gln Ala
145 150 155 160

Gln Gln Gln Leu Ile Val Glu Gln Gln Asp Glu Gln Leu Glu Leu Val
165 170 175

Ser Gly Ser Ile Gly Val Leu Lys Asn Met Ser Gln Arg Ile Gly Gly
180 185 190

Glu Leu Glu Glu Gln Ala Val Met Leu Glu Asp Phe Ser His Glu Leu
195 200 205

Glu Ser Thr Gln Ser Arg Leu Asp Asn Val Met Lys Lys Leu Ala Lys
210 215 220

Val Ser His Met Thr Ser Asp Arg Arg Gln Trp Cys Ala Ile Ala Ile
225 230 235 240

Leu Phe Ala Val Leu Leu Val Val Leu Ile Leu Phe Leu Val Leu
245 250 255

<210> 127

<211> 1728

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: nucleic acid
encoding recombinant fusion protein

<400> 127

atgctgctgc tgctgctgct gctgggcctg aggctacagc tctccctggg catcatccca 60
gttgaggagg agaacccgga cttctggAAC cgcgaggcag ccgaggccct gggtgccgccc 120
aagaagctgc agcctgcaca gacagccgcc aagaacctca tcatacttcct gggcgatggg 180

atgggggtgt ctacggtgac agctgccagg atcctaaaag ggcagaagaa ggacaaactg 240
gggcctgaga taccctggc catggaccgc ttcccatatg tggctctgtc caagacatac 300
aatgtagaca aacatgtgcc agacagtggc gccacagcca cggcctacct gtgcggggtc 360
aaggcgaact tccagaccat tggcttgagt gcagccgccc gcttaacca gtgcaacacg 420
acacgcggca acgagggtcat ctccgtgatg aatcgccca agaaagcagg gaagtcagtg 480
ggagtggtaa ccaccacacg agtgcagcac gcctcgccag cggcaccta cgcccacacg 540
gtgaaccgca actggtaactc ggacgcccac gtgcctgcct cggcccgcca ggaggggtgc 600
caggacatcg ctacgcagct catctccaaatc atggacattg acgtgatcct aggtggaggc 660
cgaaaagtaca tggttccat gggaaacccca gaccctgagt acccagatga ctacagccaa 720
ggtgggacca ggctggacgg gaagaatctg gtgcaggaat ggctggcga ggcagggt 780
gcccggatg tgtggaaaccg cactgagctc atgcaggctt ccctggaccc gtctgtgacc 840
catctcatgg gtctcttga gcctggagac atgaaatacg agatccaccg agactccaca 900
ctggaccctt ccctgtatgg gatgacagag gctgcctgc gcctgctgag caggaacccc 960
cgccgcttct tcctcttcgt ggagggttgt cgcatcgacc atggtcatca taaaaggcagg 1020
gttaccggg cactgactga gacgatcatg ttgcacgacg ccattgagag ggcgggcccag 1080
ctcaccagcg aggaggacac gctgagcctc gtcaactgcgc accactccca cgtcttctcc 1140
ttcggagggctt accccctcg aggaggatcctt atttcgggc tggccctgg caaggccccgg 1200
gacaggaagg cctacacggt cctcttatac gggaaacggc caggctatgt gctcaaggac 1260
ggcggcccgcc cggatgttac cgagagcgg agcgggagcc ccgagtatcg gcagcagtca 1320
gcagtgcggcc tggacgaaga gacccacgca ggccgaggacg tggcggtt cgcgcgcggc 1380
ccgcaggccg acctgggtca cggcgtgcag gaggagaccc tcatagcga cgtcatggcc 1440
ttcgcgcctt gcctggagcc ctacaccgccc tgcacacctgg cgccccccgc cggcaccacc 1500
gaccccgcc acccaggtaa ctatgaagtt gaattccgaa gagcaactta ctagagggtt 1560
gaaagaggat tcttctacac tccaaaggca ctctacaccc tagagggtga aagaggattc 1620
ttctacacta gtctcatgac catagcctat gtcatggctg ccatctgcgc cctcttcatg 1680
ctgccactt gcctcatggt ggactacaag gatgatgatg acaagtag 1728

<210> 128

<211> 575

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: recombinant
fusion protein sequence

<400> 128

Met Leu Leu Leu Leu Leu Leu Gly Leu Arg Leu Gln Leu Ser Leu
1 5 10 15

Gly Ile Ile Pro Val Glu Glu Asn Pro Asp Phe Trp Asn Arg Glu
20 25 30

Ala Ala Glu Ala Leu Gly Ala Ala Lys Lys Leu Gln Pro Ala Gln Thr
35 40 45

Ala Ala Lys Asn Leu Ile Ile Phe Leu Gly Asp Gly Met Gly Val Ser
50 55 60

Thr Val Thr Ala Ala Arg Ile Leu Lys Gly Gln Lys Lys Asp Lys Leu
65 70 75 80

Gly Pro Glu Ile Pro Leu Ala Met Asp Arg Phe Pro Tyr Val Ala Leu
85 90 95

Ser Lys Thr Tyr Asn Val Asp Lys His Val Pro Asp Ser Gly Ala Thr
100 105 110

Ala Thr Ala Tyr Leu Cys Gly Val Lys Gly Asn Phe Gln Thr Ile Gly
115 120 125

Leu Ser Ala Ala Ala Arg Phe Asn Gln Cys Asn Thr Thr Arg Gly Asn
130 135 140

Glu Val Ile Ser Val Met Asn Arg Ala Lys Lys Ala Gly Lys Ser Val
145 150 155 160

Gly Val Val Thr Thr Arg Val Gln His Ala Ser Pro Ala Gly Thr
165 170 175

Tyr Ala His Thr Val Asn Arg Asn Trp Tyr Ser Asp Ala Asp Val Pro
180 185 190

Ala Ser Ala Arg Gln Glu Gly Cys Gln Asp Ile Ala Thr Gln Leu Ile
195 200 205

Ser Asn Met Asp Ile Asp Val Ile Leu Gly Gly Arg Lys Tyr Met
210 215 220

Phe Pro Met Gly Thr Pro Asp Pro Glu Tyr Pro Asp Asp Tyr Ser Gln
225 230 235 240

Gly Gly Thr Arg Leu Asp Gly Lys Asn Leu Val Gln Glu Trp Leu Ala
245 250 255

Lys Arg Gln Gly Ala Arg Tyr Val Trp Asn Arg Thr Glu Leu Met Gln
260 265 270

Ala Ser Leu Asp Pro Ser Val Thr His Leu Met Gly Leu Phe Glu Pro
275 280 285

Gly Asp Met Lys Tyr Glu Ile His Arg Asp Ser Thr Leu Asp Pro Ser
290 295 300

Leu Met Glu Met Thr Glu Ala Ala Leu Arg Leu Leu Ser Arg Asn Pro
305 310 315 320

Arg Gly Phe Phe Leu Phe Val Glu Gly Gly Arg Ile Asp His Gly His
325 330 335

His Glu Ser Arg Ala Tyr Arg Ala Leu Thr Glu Thr Ile Met Phe Asp
340 345 350

Asp Ala Ile Glu Arg Ala Gly Gln Leu Thr Ser Glu Glu Asp Thr Leu
355 360 365

Ser Leu Val Thr Ala Asp His Ser His Val Phe Ser Phe Gly Gly Tyr
370 375 380

Pro Leu Arg Gly Ser Ser Ile Phe Gly Leu Ala Pro Gly Lys Ala Arg
385 390 395 400

Asp Arg Lys Ala Tyr Thr Val Leu Leu Tyr Gly Asn Gly Pro Gly Tyr
405 410 415

Val Leu Lys Asp Gly Ala Arg Pro Asp Val Thr Glu Ser Glu Ser Gly
420 425 430

Ser Pro Glu Tyr Arg Gln Gln Ser Ala Val Pro Leu Asp Glu Glu Thr
435 440 445

His Ala Gly Glu Asp Val Ala Val Phe Ala Arg Gly Pro Gln Ala His
450 455 460

Leu Val His Gly Val Gln Glu Gln Thr Phe Ile Ala His Val Met Ala
465 470 475 480

Phe Ala Ala Cys Leu Glu Pro Tyr Thr Ala Cys Asp Leu Ala Pro Pro
485 490 495

Ala Gly Thr Thr Asp Ala Ala His Pro Gly Asn Tyr Glu Val Glu Pro
500 505 510

Arg Arg Ala Leu Tyr Val Glu Gly Glu Arg Gly Phe Phe Tyr Thr Pro
515 520 525

Lys Ala Leu Tyr Leu Val Glu Gly Glu Arg Gly Phe Phe Tyr Thr Ser
530 535 540

Leu Met Thr Ile Ala Tyr Val Met Ala Ala Ile Cys Ala Leu Phe Met
545 550 555 560

Leu Pro Leu Cys Leu Met Val Asp Tyr Lys Asp Asp Asp Asp Lys
565 570 575

<210> 129

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 129

Lys Met Asp Ala Glu
1 5

<210> 130

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 130

Gly Arg Arg Gly Ser
1 5

<210> 131

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 131

Val Glu Ala Asn Tyr Glu Val Glu Gly Glu
1 5 10

<210> 132

<211> 10

<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic peptide sequence

<400> 132

Val Glu Ala Asn Tyr Ala Val Glu Gly Glu
1 5 10

<210> 133

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic peptide sequence

<400> 133

Lys Thr Ile Asn Leu Glu Val Glu Pro Ser
1 5 10

<210> 134

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic peptide sequence

<220>

<221> MOD_RES

<222> (5)

<223> Nle

<400> 134

Lys Thr Ile Asn Xaa Glu Val Glu Pro Ser
1 5 10

<210> 135

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<221> MOD_RES

<222> (5)

<223> Nle

<220>

<223> Description of Artificial Sequence: synthetic peptide sequence

<400> 135

Lys Thr Ile Asn Xaa Glu Val Asp Pro Ser

1

5

10

<210> 136
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<221> MOD_RES
<222> (5)
<223> Nle

<220>
<223> Description of Artificial Sequence: synthetic peptide sequence

<400> 136
Lys Thr Ile Asn Xaa Asp Val Asp Pro Ser
1 5 10

<210> 137
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic peptide sequence

<400> 137
Lys Thr Ile Ser Leu Asp Val Glu Pro Ser
1 5 10

<210> 138
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic peptide sequence

<400> 138
Lys Thr Ile Ser Leu Asp Val Asp Pro Ser
1 5 10

<210> 139
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic peptide sequence

<400> 139
Lys Met Asp Ala
1

<210> 140
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic peptide sequence

<400> 140
Ser Tyr Glu Val
1

<210> 141
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic peptide sequence

<400> 141
Ser Glu Val Ser Tyr Glu Val Glu Phe Arg
1 5 10

<210> 142
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic peptide sequence

<400> 142
Asn Leu Asp Ala
1

<210> 143
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic peptide sequence

<400> 143
Ser Glu Val Ser Tyr Asp Ala Glu Phe Arg
1 5 10

<210> 144
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic

peptide sequence

<400> 144
Ser Glu Val Ser Tyr Glu Ala Glu Phe Arg
1 5 10

<210> 145
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 145
Thr Arg Pro Gly Ser Gly Leu Thr Asn Ile Lys Thr Glu Glu Ile Ser
1 5 10 15
Glu Val Ser Tyr Glu Val Glu Phe Arg
20 25

<210> 146
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 146
Gly Leu Thr Asn Ile Lys Thr Glu Glu Ile Ser Glu Val Ser Tyr Glu
1 5 10 15
Val Glu Phe Arg
20

<210> 147
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 147
Lys Thr Glu Glu Ile Ser Glu Val Ser Tyr Glu Val Glu Phe Arg
1 5 10 15

<210> 148
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 148
Thr Glu Val Ser Tyr Glu Val Glu Phe Arg
1 5 10

<210> 149
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 149
Ser Glu Val Asp Tyr Glu Val Glu Phe Arg
1 5 10

<210> 150
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 150
Thr Glu Val Asp Tyr Glu Val Glu Phe Arg
1 5 10

<210> 151
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 151
Thr Glu Ile Asp Tyr Glu Val Glu Phe Arg
1 5 10

<210> 152
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<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 152
Ser Glu Ile Ser Tyr Glu Val Glu Phe Arg
1 5 10

<210> 153
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<212> PRT
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<220>
<223> Description of Artificial Sequence: synthetic peptide sequence

<400> 153
Ser Glu Ile Asp Tyr Glu Val Glu Phe Arg
1 5 10

<210> 154
<211> 13
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<220>
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<222> (11)
<223> Xaa=tryptophan

<220>
<223> Description of Artificial Sequence: synthetic peptide sequence

<400> 154
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<210> 155
<211> 18
<212> PRT
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<220>
<221> SITE
<222> (16)
<223> Xaa=tryptophan

<220>
<223> Description of Artificial Sequence: synthetic peptide sequence

<400> 155
Lys Thr Glu Glu Ile Ser Glu Ile Ser Tyr Glu Val Glu Phe Arg Xaa
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Lys Lys

<210> 156
<211> 23
<212> PRT
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<220>
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<223> Xaa=tryptophan

<220>

<223> Description of Artificial Sequence: synthetic peptide sequence

<400> 156

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1 5 10 15

Glu Phe Arg Xaa Lys Lys
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<210> 157

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic peptide sequence

<220>

<221> SITE

<222> (26)

<223> Xaa=tryptophan

<400> 157

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1 5 10 15

Glu Ile Ser Tyr Glu Val Glu Phe Arg Xaa Lys Lys
20 25

<210> 158

<211> 13

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<223> Xaa=tryptophan

<220>

<223> Description of Artificial Sequence: synthetic peptide sequence

<400> 158

Ser Glu Ile Ser Tyr Glu Val Glu Phe Arg Xaa Lys Lys
1 5 10

<210> 159

<211> 18

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: synthetic peptide sequence

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<222> (16)

<223> Xaa=tryptophan

<400> 159

Lys Thr Glu Glu Ile Ser Glu Ile Ser Tyr Glu Val Glu Phe Arg
1 5 10 15

Xaa Lys Lys

<210> 160

<211> 23

<212> PRT

<213> Artificial Sequence

<220>

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<222> (21)

<223> Xaa=tryptophan

<220>

<223> Description of Artificial Sequence: synthetic
peptide

<400> 160

Gly Leu Thr Asn Ile Lys Thr Glu Glu Ile Ser Glu Ile Ser Tyr
1 5 10 15

Glu Val Glu Phe Arg Xaa Lys Lys
20

<210> 161

<211> 28

<212> PRT

<213> Artificial Sequence

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<221> SITE

<222> (26)

<223> Xaa=tryptophan

<220>

<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 161

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1 5 10 15

Ser Glu Ile Ser Tyr Glu Val Glu Phe Arg Xaa Lys Lys
20 25

<210> 162

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<221> SITE

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<223> Xaa=oregon green

<220>

<223> Description of Artificial Sequence: synthetic peptide sequence

<400> 162

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1 5 10

<210> 163

<211> 18

<212> PRT

<213> Artificial Sequence

<220>

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<222> (16)

<223> Xaa=oregon green

<220>

<223> Description of Artificial Sequence: synthetic peptide sequence

<400> 163

Lys Thr Glu Glu Ile Ser Glu Ile Ser Tyr Glu Val Glu Phe Arg Xaa
1 5 10 15

Lys Lys

<210> 164

<211> 23

<212> PRT

<213> Artificial Sequence

<220>

<221> SITE

<222> (21)

<223> Xaa=oregon green

<220>

<223> Description of Artificial Sequence: synthetic peptide sequence

<400> 164

Gly Leu Thr Asn Ile Lys Thr Glu Glu Ile Ser Glu Ile Ser Tyr Glu
1 5 10 15

Val Glu Phe Arg Xaa Lys Lys
20

<210> 165

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<221> SITE

<222> (26)

<223> Xaa=oregon green

<220>

<223> Description of Artificial Sequence: synthetic peptide sequence

<400> 165

Thr Arg Pro Gly Ser Gly Leu Thr Asn Ile Lys Thr Glu Glu Ile Ser
1 5 10 15

Glu Ile Ser Tyr Glu Val Glu Phe Arg Xaa Lys Lys
20 25

<210> 166

<211> 13

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<213> Artificial Sequence

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<222> (11)

<223> Xaa=oregon green

<220>

<223> Description of Artificial Sequence: synthetic peptide sequence

<400> 166

Ser Glu Ile Ser Tyr Glu Val Glu Phe Arg Xaa Lys Lys
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<210> 167

<211> 18

<212> PRT

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<222> (16)

<223> Xaa=oregon green

<220>

<223> Description of Artificial Sequence: synthetic peptide sequence

<400> 167

Lys Thr Glu Glu Ile Ser Glu Ile Ser Tyr Glu Val Glu Phe Arg
1 5 10 15

Xaa Lys Lys

<210> 168

<211> 23

<212> PRT

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<223> Xaa=oregon green

<220>
<223> Description of Artificial Sequence: synthetic peptide sequence

<400> 168
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1 5 10 15

Glu Val Glu Phe Arg Xaa Lys Lys
20

<210> 169
<211> 28
<212> PRT
<213> Artificial Sequence

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<223> Xaa=oregon green

<220>
<223> Description of Artificial Sequence: synthetic peptide sequence

<400> 169
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1 5 10 15

Ser Glu Ile Ser Tyr Glu Val Glu Phe Arg Xaa Lys Lys
20 25

<210> 170
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic peptide sequence

<400> 170
Ser Glu Val Asn Tyr Glu Val Glu Phe Arg
1 5 10

<210> 171
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<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic primer for site-directed mutagenesis of APP

<400> 171
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<210> 172
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<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic primer for site-directed mutagenesis of APP

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<210> 173
<211> 47
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic primer for site-directed mutagenesis of APP

<400> 173
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<210> 174
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic primer for site-directed mutagenesis of APP

<400> 174
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<210> 175
<211> 47
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic primer for site-directed mutagenesis of APP

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<223> Description of Artificial Sequence: synthetic primer for site-directed mutagenesis of APP

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<210> 177
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<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic peptide sequence

<400> 177

Val Ser Tyr Glu Val

1 5

<210> 178

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic peptide sequence

<400> 178

Val Ser Tyr Asp Ala

1 5

<210> 179

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic peptide sequence

<400> 179

Ile Ser Tyr Glu Val

1 5

<210> 180

<211> 5

<212> PRT

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<223> Description of Artificial Sequence: synthetic peptide sequence

<400> 180

Val Lys Met Asp Ala

1 5

<210> 181

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<212> DNA

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<223> Description of Artificial Sequence: synthetic primer for generating mutant construct named MBPC125-SYEV

<400> 181
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<210> 182
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<212> DNA
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<220>
<223> Description of Artificial Sequence: synthetic
primer for generating mutant construct named
MBPC125-SYEV

<400> 182
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<220>
<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 183
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1 5

<210> 184
<211> 10
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<220>
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peptide sequence

<400> 184
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1 5 10

<210> 185
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peptide sequence

<400> 185
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1 5 10

<210> 186
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peptide sequence

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<210> 187
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<220>
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<223> Description of Artificial Sequence: synthetic
peptide sequence

<400> 189
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1 5

<210> 190
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<220>
<223> Description of artificial sequence: synthetic peptide sequence

<400> 190

Ser Glu Ile Ser Tyr Glu Val Glu Phe Arg Trp Lys Lys
1 5 10

<210> 191

<211> 23

<212> PRT

<213> Artificial sequence

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<223> Description of artificial sequence: synthetic peptide sequence

<400> 191

Gly Leu Thr Asn Ile Lys Thr Glu Glu Ile Ser Glu Ile Ser Tyr Glu
1 5 10 15

Val Glu Phe Arg Trp Lys Lys
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<210> 192

<211> 15

<212> PRT

<213> Artificial sequence

<220>

<223> Description of artificial sequence: synthetic peptide sequence

<220>

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<223> amino acid at position 1 is biotinylated

<220>

<221> SITE

<222> (14)..(14)

<223> cys at position 14 is derivatized with an oregon green

<400> 192

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<210> 193

<211> 22

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<213> Artificial sequence

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<222> (1)..(1)

<223> amino acid at position 1 is biotinylated

<220>

<221> SITE

<222> (21)..(21)

<223> cys at position 21 is derivatized with an oregon green

<400> 193

Gly Leu Thr Asn Ile Lys Thr Glu Glu Ile Ser Glu Ile Ser Tyr Glu
1 5 10 15

Val Glu Phe Arg Lys Lys
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<210> 194

<211> 6806

<212> DNA

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<223> Description of artificial sequence: synthetic DNA sequence

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<222> (11) .. (11)

<223> 2,4-dinitrophenyl group after the Lys at position 11

<400> 195

Ser Glu Val Asn Leu Asp Ala Glu Phe Arg Lys Arg Arg
1 5 10

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<223> Description of artificial sequence: synthetic peptide sequence

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<222> (4) .. (4)

<223> amino acid at position 4 has been derivatized with a statine

<400> 196

Ser Glu Val Asn Val Ala Glu Phe Arg Gly Gly Cys
1 5 10

<210> 197

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<222> (10) .. (10)

<223> amino acid at position 10 has been derivatized with Bodipy FL

<400> 197

Ser Glu Val Asn Val Ala Glu Phe Arg Cys
1 5 10